MALAD RIVER BASIN

13141000 BIG WOOD NEAR BELLEVUE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1981, October 1989 to September 1990, November 1991 to September 1992, November 1993 to September 1994, April to September 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME		ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED S (MG/L)	(PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR 26	1200	498	265	8.2	14.0	8.0	0.6	10.0	100	К4	
MAY 20 JUN	1045	1660	203	8.3	11.0	6.0	18	11.4	110	K10	40
19 JUL	1345	1530	195	8.2	18.5	11.5	5.5	9.3	102	K17	120
11 AUG	1015	498	227	8.2	28.0	13.5	0.5	8.6	98	56	87
21 SEP	1330	98	338	8.3	25.5	16.5	0.3	8.6	105	29	86
10	1030	76	343	8.1	24.5	12.5	0.6	9.4	106	74	150
DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIU DIS- SOLVEI (MG/L AS CA)	DIS SOLV (MG AS 1	M, S S- VED J/L MG)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONAT WATE WH FF FIEL MG/L CO3 (0044	CE I R W CT TO D :	ALKA- JINITY JAT WH OT FET FIELD G/L AS CACO3 00410)
SEP 10	170	52	9.	. 6	4.9	6	1.4	190	0	:	156
DATE		SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVE (MG/I AS F)	, I SC SD (1 L) S.		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS DIS- SOLVEI (TONS PER DAY) (70302	
SEP 10		14	1.8	0.3		16	197	194	0.27	40.	2
DATE		NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO GEN, AMMONI DIS- SOLVE (MG/I AS N)	GEI IA MOI ORI ID TI L (I	TRO- N,AM- NIA + GANIC OTAL MG/L S N) 0625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE SUS- PENDEI (T/DAY (80155)
APR 26		<0.01	0.17	<0.0	15	<0.2	<0.01	<0.01	15	20	
MAY 20		0.01	0.14	0.0		0.3	0.07	0.02	129	578	
JUN 19		<0.01	0.12	0.0	30	0.2	0.10	<0.01	75	310	
JUL 11							0.05		11	15	
AUG 21 SEP		0.01	0.79	<0.0	15	<0.2	<0.01	<0.01	5	1.	3
10		<0.01	0.08	<0.0	15	<0.2	<0.01	<0.01	5	1.	0

K Results based on counts outside ideal colony range.

MALAD RIVER BASIN

13141000 BIG WOOD NEAR BELLEVUE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1981, October 1989 to September 1990, November 1991 to September 1992, November 1993 to September 1994, April 1996 to September 1997 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June to September 1997 (discontinued).

REMARKS.--Missing data due to equipment malfunction.

INSTRUMENTATION .-- Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 20.1°C July 21, 1997.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 20.1°C July 21.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR 16 MAY	1045	569	287	8.1	16.0	4.0	0.55	11.2	103	K10	K64
13 JUN	1115	3990	188	8.0	33.0	5.5		10.0	95	80	170
03 JUL	1030	4080	188	8.0	24.0	9.0	41	8.4	87	100	170
15 AUG	1045	450	249	8.1	29.0	12.5	0.71	9.2	103	K56	K46
19 SEP	1100	122	306	8.0	27.0	13.5	0.58	7.9	88	K50	K58
11	1115	43	331	8.0	21.5	15.0	0.42	8.0	94	130	140
DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	S	ALCIUM DIS- SOLVED (MG/L S CA) 00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	POTAS SIUM, DIS- SOLVE: (MG/I AS K)	WATE WH F: D FIEL MG/L HCO	TE BON ER WATET WH LD FIR AS MG/1 3 CO	ATE FER SLD	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
SEP 11	160		49	9.9	4.8	6	1.4	200) ()	168
DATE	E SC (1 AS	LFATE DIS- DLVED MG/L SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	RES AT DEC DI SOI (MC	IDS, IDUE 180 3. C IS- LVED G/L) 300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLII DIS SOLV (TOI PEI DAY (703)	- ED NS R
SEP											
11	. 13	3	1.7	0.32	15	192	2	196	0.26	2:	2.1
DATE	G NI' E SC (I A:	TRO- SEN, TRITE DIS- DLVED MG/L S N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHO TO (M AS	OS- DRUS TAL G/L P) 665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED: MENT DIS CHARG SUS PEND (T/DA	Г, - - - ED AY)
APR 16	. <(0.010	0.207	<0.015	<0.20	(0.019	<0.010	289	44	1
MAY 13		0.010	0.157	<0.015	0.57		0.189	0.016	359	3870	
JUN 03		0.010	0.116	<0.015	0.41		0.163	0.012	236	2600	
JUL 15	. <(0.010	0.082	<0.015	<0.20	<(0.010	<0.010	9	1:	L
AUG 19	. <(0.010	0.164	0.015	<0.20	(0.010	0.017	22	,	7.2
SEP 11	. <(0.010	0.052	<0.015	<0.20	<(0.010	<0.010	3	(0.35

K Results based on counts outside ideal colony range.

MALAD RIVER BASIN 13141000 BIG WOOD NEAR BELEVUE, ID--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DA	Y MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	
		JUNE			JULY			AUGUST			SEPTEMBER		
1				15.1	9.4	12.0							
2				14.2	9.7	11.7							
3				16.4	8.9	12.4							
4				17.6	10.6	13.8							
5	10.4	7.8	9.3	18.0	11.2	14.3							
6	12.9	8.3	10.2	17.2	11.7	14.2							
7	13.1	8.9	10.9	17.5	11.2	14.0							
8	13.4	9.8	11.5	17.6	11.5	14.4							
9	13.8	9.2	11.4	16.1	12.1	14.1							
10	11.8	9.1	10.1	14.6	11.9	13.3							
11	12.6	8.4	10.0	16.4	9.5	12.7							
12	10.3	8.9	9.5	13.7	11.4	12.5							
13	11.8	8.4	9.9	17.6	10.1	13.6				18.1	12.6	15.1	
14	12.6	9.0	10.7	18.9	11.4	14.9				18.6	13.4	15.6	
15	13.8	8.9	11.0	19.6	12.3	15.7				16.4	12.6	14.2	
16	13.8	9.8	11.6	19.8	12.9	16.1				15.4	10.9	12.9	
17	14.3	9.8	12.0	17.0	13.8	15.3				15.7	10.6	13.0	
18	14.6	10.1	12.2	16.2	12.3	13.9				15.4	11.8	13.2	
19	13.8	10.0	11.8	18.1	11.7	14.7				16.1	10.4	13.0	
20	13.7	9.5	11.5	19.3	12.1	15.5				13.3	11.7	12.5	
21	14.2	9.0	11.4	20.1	12.5	16.1				14.9	11.5	13.0	
22	14.3	10.1	12.0	19.9	13.4	16.6				17.3	12.5	14.6	
23	13.5	9.0	11.1	19.9	13.7	16.7				17.0	12.5	14.6	
24	13.4	8.0	10.6							16.7	11.7	14.0	
25	15.3	9.0	11.9							15.7	11.8	13.8	
26	16.2	10.0	12.8							16.4	13.1	14.5	
27	14.9	11.1	12.7							14.8	10.9	12.8	
28	15.9	10.0	12.6							14.9	9.8	12.2	
29		10.9	13.2							15.4	10.1	12.6	
30	15.4	11.1	12.7							15.7	10.6	13.0	
31													
MONTH													

MALAD RIVER BASIN

13141000 BIG WOOD RIVER NEAR BELLEVUE, ID--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1981, October 1989 to September 1990, November 1991 to September 1992, November 1993 to September 1994, April 1996 to September 1997 (discontinued).

PERIOD OF DAILY RECORD .--

WATER TEMPERATURE: June to September 1997 (discontinued).

INSTRUMENTATION .-- Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD .--

WATER TEMPERATURE: Maximum, 20.1 °C July 21, 1997.

COLLECTION METHODS.--Composite of 5, 0.25 m² samples. Richest targeted habitat--riffles, whole sample. MESH SIZE.--425 um.

AVERAGE DEPTH.--0.24 m.

AVERAGE PERCENT SHADING .-- 22.

AVERAGE VELOCITY.--0.91 m/s.

SUBSTRATE EMBEDDEDNESS CLASS RANGE.--2-4.

PERCENT FINES RANGE .-- 0-10.

HABITAT QUALITY INDEX.--61.

REMARKS.--Nice riffles in reach. Damage on banks due to cattle grazing.

BIOLOGICAL DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 BENTHIC INVERTEBRATE COLLECTION DATA

ORGANISM TAXON	NUMBER OF INDIV-	PERCENT COMPO-	FUNC- TIONAL FEEDING	POLLU- TION TOLER- ANCE
GENUS SPECIES DATE JUL 23	IDUALS	SITION	GROUP	VALUE
NON-INSECTS Nematoda	4	0.35	PA	5
Oligochaeta	2	0.18	CG	8
Pisidium	2	0.18	CG	8
Copepoda Acari	2 2	0.18 0.18	CG PA	8 5
EPHEMEROPTERA				
Acentrella turbida	11	0.88	CG	4
Baetis tricaudatus	32	2.65	CG	6
Diphetor hageni	30	2.48	CG	5 0
Drunella coloradensis/flavilinea Drunella doddsi	8 4	0.71 0.35	CG CG	0
Ephemerella	2	0.18	CG	1
Ephemerella inermis/infrequens	49	4.07	CG	ī
Serratella tibialis	51	4.25	CG	2
Cinygmula	90	7.43	SC	4
Epeorus-early instar	2	0.18	SC	0
Epeorus albertae	8	0.71	SC	1
Paraleptophlebia	2	0.18	CG	4
PLECOPTERA				
Chloroperlidae	17	1.42	PR	1
Perlodidae-early instar	4 2	0.35	PR	2
Isoperla Pteronarcella	21	0.18 1.77	PR OM	2
	21	1.//	OH	Ü
TRICHOPTERA	0.1	6 72	OM	1
Brachycentrus americanus	81	6.73	OM	1
COLEOPTERA				
Dytiscidae	11	0.88	PR	5
Optioservus	2	0.18	SC	4
DIPTERA	Ō	0.10	77	-
Clinocera Simulium	2 383	0.18 31.68	PR CF	6 6
Cryptolabis	4	0.35	UN	4
	•	0.55	021	-
CHIRONOMIDAE	0.6	7.06	IDI	-
Chironomidae-pupae Cardiocladius	96 15	7.96 1.24	UN PR	6 5
Cricotopus	11	0.88	CG	7
Eukiefferiella	8	0.71	OM	8
Micropsectra	2	0.18	CG	7
Orthocladius Complex	34	2.83	CG	6
Orthocladius	195	16.11	CG	6
Paracladius	2	0.18	CG	6
Polypedilum Tvetenia	11 2	0.88 0.18	OM CG	6 5
ivecenia	2	0.18	CG	5
TOTAL NUMBER OF TAXA	37		EPT ABUNDANCE	417/m ²
)9/m ²			
			NUMBER EPT TAXA	17
HILSENHOFF BIOTIC INDEX	4.78		SHANNON DIVERSITY INDEX	(H) 3.57

MALAD RIVER BASIN 13141000 BIG WOOD RIVER NEAR BELLEVUE, ID--Continued

COLLECTION METHODS.--Qualitative multiple habitat, relative abundance, whole sample.

MESH SIZE.--210 um.

GEAR TYPE.--D-frame net and visual collections.

REACH LENGTH .-- NA.

AVERAGE WIDTH.--30 m.

HABITAT QUALITY INDEX.--61.

REMARKS.--Nice riffles in reach. Damage on banks due to cattle grazing.

BIOLOGICAL DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 BENTHIC INVERTEBRATE COLLECTION DATA

ORGANISM TAXON GENUS SPECIES DATE JUL 23	NUMBER OF INDIV- IDUALS	PERCENT COMPO- SITION	FUNC- TIONAL FEEDING GROUP	POLLU- TION TOLER- ANCE VALUE
NON-INSECTS Acari	30	0.36	PΆ	5
	30	0.50		3
EPHEMEROPTERA Acentrella turbida Baetis tricaudatus Diphetor hageni Attenella margarita Drunella coloradensis/flavilinea Drunella doddsi Ephemerella inermis/infrequens Serratella tibialis Timpanoga hecuba Cinygmula Epecrus albertae	90 150 315 30 45 30 150 135 15 555	1.08 1.8 0.36 0.54 0.36 1.8 1.62 0.18 6.65	CG	4 6 5 2 0 0 1 2 7 4
Rhithrogena	30	0.34	SC	0
PLECOPTERA Chloroperlidae Hesperoperla pacifica Pteronarcella	15 15 30	0.18 0.18 0.36	PR PR OM	1 2 0
TRICHOPTERA Brachycentrus americanus Lepidostoma-sand case larva	90 30	1.08 0.36	OM SH	1
COLEOPTERA Dytiscidae <i>Optioservus</i>	15 15	0.18 0.18	PR SC	5 4
DIPTERA				
Ceratopogoninae Simulium Hexatoma	15 1530 45	0.18 18.35 0.54	PR CF PR	6 6 2
CHIRONOMIDAE Chironomidae-pupae Cardiocladius Corynoneura Cricotopus Eukiefferiella Nilotanypus Odontomesa Orthocladius Complex Orthocladius Rheotanytarsus Tanytarsus Thienemanniella Tvetenia	90 195 45 480 390 45 45 45 435 2775 45 45 45 45	1.08 2.34 0.54 5.76 4.68 0.54 0.54 5.22 33.27 0.54 0.54 0.54	UN PR CG CG OM PR CG CG CG CG CG CG CG CG	6 5 7 7 8 6 4 4 5 6 6 6 6 6 6 6 5 5
TOTAL NUMBER OF TAXA 3 TOTAL NUMBER OF ORGANISMS 834 HILSENHOFF BIOTIC INDEX			EPT ABUNDANCE NUMBER EPT TAXA SHANNON DIVERSITY INDE	1770 17 X (H) 3.55